

**SENIOR AIR POLLUTION CONTROL ENGINEER**

**DEFINITION:**

Under direction, to perform responsible professional air pollution control engineering work in the field, and in the office; to supervise professional and paraprofessional air pollution staff; and to perform related work.

**DISTINGUISHING CHARACTERISTICS:**

This is the lead/supervisory level class in the Air Pollution Control (APC) Engineer class series. Incumbents are responsible for directing major engineering programs and/or serving as project leaders for highly technical and specialized functions requiring independence of actions, decisions, and the application of the rules, regulations, and policies of the Air Pollution Control District (APCD). The Senior APC Engineer differs from the next lower class, Associate Air Pollution Control Engineer, in that the latter performs journey level APC engineering work and does not have supervisory responsibilities.

**EXAMPLES OF DUTIES:**

Plans, directs, coordinates, schedules, trains, and evaluates the work of subordinate professional and technical staff within a section of the APC Engineering Division; analyzes and evaluates the air contamination potential of such major industries as chemical plants, fabricated metal product manufacturers, fuel and kindred products; conducts or directs inspections and review of plans and specifications accompanying permit applications for industry equipment installation and construction; reviews Federal and State air pollution control regulations, and develops and implements district and local air pollution control rules, regulations, and standards; reviews design features of operating industrial processes and equipment; determines the best available control technology and lowest achievable emission rate; assesses health risks associated with air contaminants; examines the operation and adequacy of emission control equipment; prepares engineering reports in connection with a wide variety of air pollution problems and issues; develops, improves, and oversees the implementation of engineering evaluation and inspection procedures, and non-standard source testing procedures; represents the district on state-wide task forces and technical committees; may coordinate activities with other Federal, State, or local regulatory agencies; may testify as an expert witness on air pollution matters; interprets regulations to applicants and/or the general public; determines the fee for non-standard applications; and prepares engineering section budgets.

**MINIMUM QUALIFICATIONS:**

**Knowledge of:**

- The fundamentals of engineering practices, methods, techniques and the standard sources of general engineering information relating to Air Pollution Control.
- Techniques and practices used to evaluate air pollution equipment and control devices (design specification, installation, and operation).
- Industrial and commercial processes and operations including combustion processes, coating and chemical processes, mechanical processes that involve particulate emissions and petroleum marketing, and storage operations.
- Air pollution control engineering design, operation, and use.

- Air pollution control source inspection and emissions testing techniques.
- Air Pollution Control District rules and regulations.
- Air pollution regulatory programs, including federal and state air pollution-related requirements.
- Supervision and training principles and techniques.

**Skills and Abilities to:**

- Plan, direct, coordinate, assign, train, and evaluate the work of subordinate staff performing activities relating to field and permit evaluation of industrial processing equipment and facilities.
- Evaluate techniques and practices for conducting tests and inspection of industrial processes, equipment, and facilities relative to the rules and regulations of the District.
- Examine, evaluate, and approve a wide range of commercial, industrial, and power generating processes and equipment for construction and operation relative to air pollution potential and the reduction and control of air contaminants.
- Evaluate the technical merits of air pollution emission estimates and facility emission inventories.
- Evaluate toxic air contaminant emissions from existing and future sources and identify public health risks.
- Prepare technical reports, flow charts, drawings, and sketches of processes and related equipment.
- Answer inquiries concerning emission control standards, federal/state and district rules, regulations, procedures, and requirements.
- Establish and maintain effective working relationships with the public, staff, and representatives from regulated industries and public/private agencies.
- Develop and implement improvements to District regulatory and technical support programs.
- Communicate effectively orally, and in written form, in English.

**EDUCATION/EXPERIENCE:**

Education, training, and/or experience which clearly demonstrates the knowledge, skills and abilities listed above. Examples of qualifying education/experience are:

1. A Bachelor's degree from an accredited college or university in chemical engineering, environmental engineering, or mechanical engineering; AND, four (4) years of recent, progressively responsible, professional-level experience performing air pollution control engineering work; OR,
2. Two (2) years of experience as an Associate Air Pollution Control Engineer for the County of San Diego Air Pollution Control District.

Previous experience in supervising the work of subordinate air pollution engineering professional and technical staff is highly desirable.

**SPECIAL NOTES, LICENSES, OR REQUIREMENTS:**

**License:**

A valid California Class C driver's license or the ability to arrange transportation for field travel is required at time of appointment and must be maintained throughout employment. Employees in this class may be required to use their own personal vehicle.

**Working Conditions:**

Incumbents may be exposed to dust, fumes, organic vapors, noxious gases, and high temperatures. For protection

purposes, incumbents may be required to wear a respirator or other protection equipment. Facial hair that interferes with the respirator seal or prevents proper respirator operation shall be removed.

Incumbents may be required to climb ladders and conduct work at elevated heights.